

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: MIU et al. Patent Application
Application No.: 10/769,090 Group Art Unit: 2617
Filed: January 30, 2004 Examiner: Brandt, Christopher M.

For: SYSTEM AND METHOD FOR MULTI-ACCESS POINT TRANSMISSION OF
DATA USING A PLURALITY OF ACCESS POINTS

APPEAL BRIEF

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I. Real Party in Interest

The assignee of the present invention is Hewlett-Packard Development Company,
L.P.

200315306-1
Application No.: 10/769,090

Group Art Unit: 2617

II. Related Appeals and Interferences

There are no related appeals or interferences known to the Appellants.

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III. Status of Claims

Claims 1-40 remain pending. This Appeal involves Claims 1-40.

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IV. Status of Amendments

No amendment subsequent to the Final Action has been filed in this case.

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V. Summary of Claimed Subject Matter-

Independent Claim 1 recites “[a] method for delivering data, in a wireless system comprising a distributed infrastructure of access points.” This embodiment is depicted at least in Figure 6 and Figure 4C. “Referring now to Figure 6, at 601 the present embodiment identifies a plurality of access points, (e.g., access point 305 and access point 307 of Figure 3) located in a distributed infrastructure of access points to be used cooperatively in combination with each other for the transmission of data to a receiver 309. In Figure 4A, data packets are designated with the reference characters d₁-d_x. In the present embodiment, the cooperative usage of the plurality of access points is maintained for at least some portion of a data transmission period.” (page 10, lines 18-25). “Referring again to Figure 6, at 603 the present embodiment enables the transmission of data from sender 301 to receiver 309 via the identified plurality of access points (e.g., 305 and 307) using a predetermined multi-access point transmission scheme. In the present embodiment, data is transmitted in a pattern that corresponds to the transmission scheme that is employed, where data transmission is constrained to at least two access points during at least some portion of a data transmission period.” (page 11, lines 5-11). “Additionally, in another embodiment in accordance with the present invention, each data packet includes an associated timestamp that is examined to determine delay. The measurements are made at the physical layer by the system itself or by the application. In one such embodiment, the client examines a data packet's timestamp in order to determine the extent of its delay.” (pg 20, line 39 – pg 21, line 3). “Figure 4C illustrates an exemplary response of the site selection multi-access point transmission scheme to changes in channel conditions according to one embodiment of the present invention. The difference between Figure 4B, and Figure 4C, is that in Figure 4C ` (e.g., a receiver has moved, cross traffic has moved, or interference has changed) has caused the identification of

a different preferred access point. For example, access point 305 was the preferred access point in the configuration depicted in Figure 4B, and due to some change in conditions, access point 307 becomes the preferred access point in the configuration depicted in Figure 4C. Figure 4C shows that the majority of the data packets that are transmitted from the sender 301 to the receiver 309 are transmitted through the newly preferred access point 307.” (page 16, lines 4-14).

Independent Claim 10 recites “[a] method for delivering data utilizing a multi-access point transmission scheme.” This embodiment is depicted at least in Figure 5, Figure 4A and Figure 4C. “Referring now to Figure 6, at 601 the present embodiment identifies a plurality of access points, (e.g., access point 305 and access point 307 of Figure 3) located in a distributed infrastructure of access points to be used cooperatively in combination with each other for the transmission of data to a receiver 309. In Figure 4A, data packets are designated with the reference characters d_1-d_x . In the present embodiment, the cooperative usage of the plurality of access points is maintained for at least some portion of a data transmission period.” (page 10, lines 18-25). “Additionally, in another embodiment in accordance with the present invention, each data packet includes an associated timestamp that is examined to determine delay. The measurements are made at the physical layer by the system itself or by the application. In one such embodiment, the client examines a data packet's timestamp in order to determine the extent of its delay.” (pg 20, line 39 – pg 21, line 3). “In the embodiment of Figure 4A, the multi-access point transmission scheme is a split-stream multi-access point transmission scheme. According to one embodiment, in the split-stream multi-access point transmission scheme, data to be transmitted from sender 301 to receiver 309 is allocated such that access points of the identified plurality of access points operate

cooperatively and in combination by transmitting different portions of said data in an alternating manner. According to one embodiment, data stream portions can be substantially evenly distributed among access points 305 and 307. (page 14, lines 16-26). “Figure 4C illustrates an exemplary response of the site selection multi-access point transmission scheme to changes in channel conditions according to one embodiment of the present invention. The difference between Figure 4B, and Figure 4C, is that in Figure 4C `(e.g., a receiver has moved, cross traffic has moved, or interference has changed) has caused the identification of a different preferred access point. For example, access point 305 was the preferred access point in the configuration depicted in Figure 4B, and due to some change in conditions, access point 307 becomes the preferred access point in the configuration depicted in Figure 4C. Figure 4C shows that the majority of the data packets that are transmitted from the sender 301 to the receiver 309 are transmitted through the newly preferred access point 307.” (page 16, lines 4-14).

Independent Claim 16 recites “[a] system for data delivery in a wireless system comprising a distributed infrastructure of access points.” This embodiment is depicted in at least Figure 5. “Figure 5 shows data packet allocation system 500 according to one embodiment of the present invention. System 500 facilitates the identification of a plurality of access points to be used cooperatively in combination with each other in the transmission of data from a sender to a receiver. Moreover, data packet allocation system 500 enables the transmission of the data to the receiver via the plurality of identified access points utilizing at least one multi-access point transmission scheme. System 500 of the present embodiment includes an access point identifier 501, a multi-access point data transmission enabler 503, a measurement sub-system 505, and a data packet relaying component 507. In accordance

with one embodiment of the present invention access point identifier 501 identifies a plurality of access points (e.g., access point 305 and access point 307 in Figure 3) to be used cooperatively in combination with each other for the transmission of data from a sender to a receiver. After the plurality of access points (e.g., access point 305 and access point 307 of Figure 3) is identified, an indication of the access points that have been identified is communicated to the multi-access point data transmission enabler 503. Multi-access point data transmission enabler 503 is communicatively coupled to the access point identifier and enables the transmission of the data to the receiver via the plurality of access points (e.g., 305 and 307 in Figure 3) by utilizing at least one multi-access point transmission scheme. Multi-access point data transmission enabler 503 determines (for existing conditions) whether the use of a multi-access point transmission scheme is desirable. If the use of a multi-access point transmission scheme is determined to be desirable, multi-access point data transmission enabler 503 selects the transmission scheme to be employed in the transmission of the data packets from sender (e.g., sender 301 in Figure 3) to the receiver.” (page 17, lines 12-40). “Additionally, in another embodiment in accordance with the present invention, each data packet includes an associated timestamp that is examined to determine delay. The measurements are made at the physical layer by the system itself or by the application. In one such embodiment, the client examines a data packet's timestamp in order to determine the extent of its delay.” (pg 20, line 39 – pg 21, line 3).

Independent Claim 25 recites “[a] computer useable medium having computer useable code embodied therein for causing a computer to perform operations.” This embodiment is depicted at least in Figure 6 and Figure 4C. “Referring now to Figure 6, at 601 the present embodiment identifies a plurality of access points, (e.g., access point 305 and

access point 307 of Figure 3) located in a distributed infrastructure of access points to be used cooperatively in combination with each other for the transmission of data to a receiver 309. In Figure 4A, data packets are designated with the reference characters d_1-d_x . In the present embodiment, the cooperative usage of the plurality of access points is maintained for at least some portion of a data transmission period.” (page 10, lines 18-25). “Referring again to Figure 6, at 603 the present embodiment enables the transmission of data from sender 301 to receiver 309 via the identified plurality of access points (e.g., 305 and 307) using a predetermined multi-access point transmission scheme. In the present embodiment, data is transmitted in a pattern that corresponds to the transmission scheme that is employed, where data transmission is constrained to at least two access points during at least some portion of a data transmission period.” (page 11, lines 5-11). “Additionally, in another embodiment in accordance with the present invention, each data packet includes an associated timestamp that is examined to determine delay. The measurements are made at the physical layer by the system itself or by the application. In one such embodiment, the client examines a data packet's timestamp in order to determine the extent of its delay.” (pg 20, line 39 – pg 21, line 3). “Figure 4C illustrates an exemplary response of the site selection multi-access point transmission scheme to changes in channel conditions according to one embodiment of the present invention. The difference between Figure 4B, and Figure 4C, is that in Figure 4C (e.g., a receiver has moved, cross traffic has moved, or interference has changed) has caused the identification of a different preferred access point. For example, access point 305 was the preferred access point in the configuration depicted in Figure 4B, and due to some change in conditions, access point 307 becomes the preferred access point in the configuration depicted in Figure 4C. Figure 4C shows that the majority of the data packets that are transmitted from

the sender 301 to the receiver 309 are transmitted through the newly preferred access point 307.” (page 16, lines 4-14).

Independent Claim 33 recites “[a] method for delivering data, in a wireless system comprising a distributed infrastructure of access points.” This embodiment is depicted at least in Figure 6 and Figure 4C. “Referring now to Figure 6, at 601 the present embodiment identifies a plurality of access points, (e.g., access point 305 and access point 307 of Figure 3) located in a distributed infrastructure of access points to be used cooperatively in combination with each other for the transmission of data to a receiver 309. In Figure 4A, data packets are designated with the reference characters d_1-d_x . In the present embodiment, the cooperative usage of the plurality of access points is maintained for at least some portion of a data transmission period.” (page 10, lines 18-25). “Referring again to Figure 6, at 603 the present embodiment enables the transmission of data from sender 301 to receiver 309 via the identified plurality of access points (e.g., 305 and 307) using a predetermined multi-access point transmission scheme. In the present embodiment, data is transmitted in a pattern that corresponds to the transmission scheme that is employed, where data transmission is constrained to at least two access points during at least some portion of a data transmission period.” (page 11, lines 5-11). “Additionally, in another embodiment in accordance with the present invention, each data packet includes an associated timestamp that is examined to determine delay. The measurements are made at the physical layer by the system itself or by the application. In one such embodiment, the client examines a data packet's timestamp in order to determine the extent of its delay.” (pg 20, line 39 – pg 21, line 3). “Figure 4C illustrates an exemplary response of the site selection multi-access point transmission scheme to changes in channel conditions according to one embodiment of the present invention. The

difference between Figure 4B, and Figure 4C, is that in Figure 4C `(e.g., a receiver has moved, cross traffic has moved, or interference has changed) has caused the identification of a different preferred access point. For example, access point 305 was the preferred access point in the configuration depicted in Figure 4B, and due to some change in conditions, access point 307 becomes the preferred access point in the configuration depicted in Figure 4C. Figure 4C shows that the majority of the data packets that are transmitted from the sender 301 to the receiver 309 are transmitted through the newly preferred access point 307.” (page 16, lines 4-14).

VI. Grounds of Rejection to Be Reviewed on Appeal

1. Claims 1, 2, 3, 6, 7, 9-12, 15-18, 20, 25, 26, 29, 30, 32-34, 37, 38 and 40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,594,245 by Rimhagen et al., hereinafter referred to as “Rimhagen,” in view of U.S. Patent Application Publication No. 2003/0009576 by Apostolopoulos et al., hereinafter referred to as “Apostolopoulos,” and further in view of U.S. Patent Application Publication No. 2003/0095552 A1 by Bernhard et al. hereinafter referred to as “Bernhard.”

2. Claims 4, 5, 8, 13, 14, 19, 21-24, 27, 28, 31, 35, 36 and 39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rimhagen in view of Apostolopoulos, further in view of Bernhard, and further in view of U.S. Patent Application Publication No. 2002/0085498 by Nakamichi et al., hereinafter referred to as “Nakamichi.”

VII. Argument

1. Whether Claims 1, 2, 3, 6, 7, 9-12, 15-18, 20, 25, 26, 29, 30, 32-34, 37, 38 and 40 are unpatentable under 35 U.S.C. §103(a) over Rimhagen in view of Apostolopoulos and in further view of Bernhard.

According to the Final Office Action mailed July 15, 2008, hereinafter referred to as the “instant Office Action,” Claims 1, 2, 3, 6, 7, 9-12, 15-18, 20, 25, 26, 29, 30, 32-34, 37, 38 and 40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rimhagen in view of Apostolopoulos and in further view of Bernhard. Appellants have reviewed Rimhagen, Apostolopoulos and Bernhard and respectfully submit that the claimed embodiments are patentable over Rimhagen in view of Apostolopoulos and in further view of Bernhard, for at least the following rationale.

Appellants respectfully submit that “[i]t is improper to combine references where the references teach away from their combination” (emphasis added; MPEP 2145(X)(D)(2); *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983)). Appellants respectfully note that “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention” (emphasis in original; MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)). Appellants respectfully submit that there is no motivation to combine the teachings of Rimhagen, Apostolopoulos and Bernhard, because Rimhagen teaches away from the suggested modification.

Furthermore, Appellants also respectfully note that the teachings of references are not sufficient to render Claims *prima facie* obvious if the “suggested combination of references

would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate" (*In re Ratti*, 270 F.2d 810, at 813, 123 USPQ at 352; MPEP §2143.01 [VI]).

Moreover, Appellants respectfully note that “[t]he prior art reference (or references when combined) need not teach or suggest all the claim limitations. However, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art” (emphasis added; MPEP 2141[III]).

Appellants respectfully submit that Rimhagen states, “With multiple serving CSs (e.g., BSs, radio heads, etc.) in accordance with the present invention may include splitting information between the multiple serving CSs. The present invention should therefore not be confused with macro diversity (i.e., soft handoff) where identical information is sent to/from the user from/to several CSs.” (Rimhagen, col. 4. lines 58-60). Appellants understand Rimhagen to teach multiple communication stations that are not sending duplicate information in preparation for a hand-off, but instead several communication stations are used at the same time.

In contrast, Appellants understand Apostolopoulos to teach, “A method for performing a soft-handoff in a mobile streaming media, and a method for performing a hard-handoff in a mobile streaming media system are disclosed.” (Apostolopoulos, abstract). In particular, Appellants respectfully submit that by disclosing splitting of information to be

sent from several CSs, that Rimhagen teaches away from the suggested modification to provide for handing office streaming media, as disclosed in Apostolopoulos.

Additionally, Appellants understand Bernhard to teach, “Then, in the case of handing over a user from e.g. a high loaded cell towards a lower loaded cell the scheduler would only grant service to the handover flow and fully compensate for its lack of service in the past.” (Bernhard, paragraph 58).

Appellants respectfully submit that the combination of Rimhagen, Apostolopoulos and Bernhard as a whole fails to suggest the features of Appellants’ Claims because Rimhagen teaches away from the suggested combination with Apostolopoulos and Bernhard. Also, the suggested combination of Rimhagen, Apostolopoulos and Bernhard would require a substantial reconstruction and redesign of the elements shown in Rimhagen as well as a change in the basic principle under which Rimhagen was designed to operate.

Moreover, Appellants respectfully submit that the instant Office Action does not explain why the differences between Rimhagen, Apostolopoulos, Bernhard and Appellants’ claimed features would have been obvious to one of ordinary skill in the art.

Thus, in view of the combination of Rimhagen, Apostolopoulos and Bernhard not satisfying the requirements of a *prima facie* case of obviousness, Appellants respectfully assert that Claims 1, 2, 3, 6, 7, 9-12, 15-18, 20, 25, 26, 29, 30, 32-34, 37, 38 and 40 are patentable.

2. Whether Claims 4, 5, 8, 13, 14, 19, 21-24, 27, 28, 31, 35, 36 and 39 are unpatentable under 35 U.S.C. §103(a) over Rimhagen in view of Apostolopoulos, in further view of Bernhard and in yet further view of Nakamichi.

According to the Final Office Action mailed July 15, 2008, hereinafter referred to as the “instant Office Action,” Claims 4, 5, 8, 13, 14, 19, 21-24, 27, 28, 31, 35, 36 and 39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rimhagen in view of Apostolopoulos, in further view of Bernhard and in yet further view of Nakamichi. Appellants have reviewed Rimhagen, Apostolopoulos, Bernhard and Nakamichi and respectfully submit that the claimed embodiments are patentable over Rimhagen in view of Apostolopoulos, in further view of Bernhard and in yet further view of Nakamichi, for at least the following rationale.

Appellants respectfully submit that, as argued above, the combination of Rimhagen, Apostolopoulos, Bernhard and Nakamichi as a whole fails to suggest the features of Appellants’ Claims because Rimhagen teaches away from the suggested combination with Apostolopoulos and Bernhard. In particular, Appellants respectfully submit that by disclosing splitting of information to be sent from several CSs, that Rimhagen teaches away from the suggested modification to provide for handing office streaming media, as disclosed in Apostolopoulos. Also, the suggested combination of Rimhagen, Apostolopoulos and Bernhard would require a substantial reconstruction and redesign of the elements shown in Rimhagen as well as a change in the basic principle under which Rimhagen was designed to operate.

Appellants have reviewed Nakamichi and understand Nakamichi teaches, “[t]he invention provides a traffic information collection device and method.” (Nakamichi,

abstract). Appellants do not understand Nakamichi to overcome the shortcoming of Rimhagen teaching away from a suggested combination with Apostolopoulos and Bernhard.

Thus, in view of the combination of Rimhagen, Apostolopoulos, Bernhard and Nakamichi not satisfying the requirements of a *prima facie* case of obviousness, Appellants respectfully assert that Claims 4, 5, 8, 13, 14, 19, 21-24, 27, 28, 31, 35, 36 and 39 are patentable.

Conclusion

Appellants believe that pending Claims 1-40 are patentable over the asserted art as the rejection under 35 U.S.C. §103(a) does not satisfy the requirements of a *prima facie* case of obviousness.

Accordingly, Appellants respectfully submit that the rejection of Claims 1-40 under 35 U.S.C. §103(a) is improper and should be reversed.

The Appellants wish to encourage the Examiner or a member of the Board of Patent Appeals to telephone the Appellants' undersigned representative if it is felt that a telephone conference could expedite prosecution.

Respectfully submitted,
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Dated: November 17, 2008

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VIII. Appendix - Clean Copy of Claims on Appeal

1. A method for delivering data, in a wireless system comprising a distributed infrastructure of access points, said method comprising:

identifying a plurality of access points to be used cooperatively in combination with each other for the transmission of said data to a receiver, wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period;

enabling the transmission of said data to said receiver via said plurality of access points, wherein said data is transmitted in a pattern that uses at least two access points during at least some portion of said data transmission period, wherein data packets of said data comprise timestamps; and

determining, during the transmission, performance of at least one of said access points being used for the transmission to enable transmitting at least a portion of said data through a different access point while the transmission is in progress, wherein said performance is based at least on examination of said timestamps.

2. The method recited in claim 1 wherein said pattern is selected from a group of predetermined transmission patterns.

3. The method of Claim 1 wherein said pattern is a split-balanced transmission pattern.

4. The method of Claim 1 wherein said pattern is a site selection transmission pattern.

5. The method of Claim 1 wherein said pattern is a combination of a split-balanced transmission pattern and a site selection transmission pattern.

6. The method of Claim 1 wherein respective access points of said plurality of access points operate cooperatively and in combination by transmitting different portions of said data in an alternating manner.

7. The method of Claim 1 wherein respective access points of said plurality of access points operate cooperatively and in combination by facilitating the transmission of a majority of said data over a first access point and the transmission of a remainder of said data over a second access point.

8. The method of Claim 7 wherein said remainder of said data is used to gather information related to said second access point.

9. The method of Claim 1 wherein said pattern is selected based upon information from the group consisting of various predetermined patterns, measurements from a variety of sources, and the content of said data to be transmitted.

10. A method for delivering data utilizing a multi-access point transmission scheme, said method comprising:

identifying a plurality of access points to be used cooperatively in combination with each other for the transmission of said data to a receiver wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period, wherein data packets of said data comprise timestamps;

delivering a first portion of said data to said receiver via a first access point;

delivering a second portion of said data to said receiver via a second access point, wherein said first portion of said data and said second portion of said data are delivered to said receiver utilizing at least one predetermined multi-access point transmission scheme; and

determining, during the delivering of said first and second portions, performance of at least one of said access points being used for the delivering of said first and second portions to enable delivering at least a portion of said data through a different access point while the first and second portions are being delivered, wherein said performance is based at least on examination of said timestamps.

11. The method of Claim 10 wherein said multi-access point transmission scheme comprises a split-balanced transmission scheme wherein data portions are evenly balanced across said plurality of access points.

12. The method of Claim 11 wherein said multi-access point transmission scheme comprises a site selection multi-access point transmission scheme wherein said first and said second access points operate cooperatively and in combination and wherein a transmission of a majority of said data is made over said first access point and the transmission of a remainder of said data is made over said second access point.

13. The method of Claim 12 wherein said remainder of said data is used to gather information related to said second access point.

14. The method of Claim 12 wherein said split-balanced multi-access point transmission scheme and said site selection multi-access point transmission scheme are used in conjunction.

15. The method of Claim 10 wherein said first and said second access points operate cooperatively and in combination by transmitting different portions of said data in an alternating manner.

16. A system for data delivery in a wireless system comprising a distributed infrastructure of access points, said system comprising:

an access point identifier that identifies a plurality of access points to be used cooperatively in combination with each other for the transmission of said data from a sender to a receiver wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period; and

a multi-access point data transmission enabler communicatively coupled to said access point identifier, said multi-access point data transmission enabler enabling the transmission of said data to said receiver via said plurality of access points by utilizing at least one multi-access point transmission scheme that uses at least two access points during at least some portion of said data transmission period, wherein data packets of said data comprise timestamps, and wherein said multi-access point data transmission enabler determines, during the transmission, performance of at least one of said access points being used for the transmission to enable transmitting at least a portion of said data through a

different access point while the transmission is in progress, wherein said performance is based at least on examination of said timestamps.

17. The system of Claim 16 further comprising:

a measurement subsystem coupled to said multi-access point data transmission enabler, said measurement sub-system providing measurements that are used by said multi-access point data transmission enabler to determine data packet allocations across said plurality of access points.

18. The system of Claim 17 further comprising:

a data packet relaying component coupled to said multi-access point data transmission enabler, said data packet relaying component for relaying data packets to said receiver that are transmitted to said data packet relaying component from said sender.

19. The system of Claim 18 wherein said access point identifier, said multi-access point data transmission enabler, said measurement sub-system, and said data packet relaying component are all resident at the same system node.

20. The system of Claim 18 wherein said access point identifier, said multi-access point data transmission enabler, said measurement sub-system, and said data packet relaying component are not all resident at the same system nodes.

21. The system of Claim 18 wherein said access point identifier and said multi-access point data transmission enabler are resident at said receiver.

22. The system of Claim 18 wherein said access point identifier and said multi-access point data transmission enabler are resident at said sender.

23. The system of Claim 18 wherein said access point identifier and said multi-access point data transmission enabler are resident at least one intermediate system node.

24. The system of Claim 18 wherein said access point identifier and said multi-access point data transmission enabler are located at least one of said plurality of access points.

25. A computer useable medium having computer useable code embodied therein for causing a computer to perform operations comprising:

identifying a plurality of access points to be used cooperatively in combination with each other for the transmission of said data to a receiver, wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period;

enabling the transmission of said data to said receiver via said plurality of access points utilizing at least one predetermined multi-access point transmission scheme that uses at least two access points during at least some portion of said data transmission period, wherein packets of said data comprise timestamps; and

determining, during the transmission, performance of at least one of said access points being used for the transmission to enable transmitting at least a portion of said data through a different access point while the transmission is in progress, wherein said performance is based at least on examination of said timestamps.

26. The computer useable medium of Claim 25 wherein said enabling said transmission of said data comprises utilizing at least one multi-access point transmission scheme that comprises a split-balanced multi-access point transmission scheme.

27. The computer useable medium of Claim 25 wherein said enabling said transmission of said data comprises utilizing at least one multi-access point transmission scheme that comprises a site selection multi-access point transmission scheme.

28. The computer useable medium of Claim 25 wherein said enabling said transmission of said data comprises utilizing a split-balanced transmission scheme and a site selection multi-access point transmission scheme that are used in conjunction.

29. The computer useable medium of Claim 25 wherein respective access points of said plurality of access points operate cooperatively and in combination by transmitting different portions of said data in an alternating manner.

30. The computer useable medium of Claim 25 wherein respective access points of said plurality of access points operate cooperatively and in combination by facilitating the transmission of a majority of said data over a first access point and the transmission of a remainder of said data over a second access point.

31. The computer useable medium of Claim 30 wherein said remainder of said data is used to gather information related to said second access point.

32. The computer useable medium of Claim 25 wherein the use of said multi-access point transmission scheme is based upon information that is selected from the group consisting of a predetermined pattern, measurements from a variety of sources, and the content of said data to be transmitted.

33. A method for delivering data, in a wireless system comprising a distributed infrastructure of access points, said method comprising:

identifying a plurality of access points to be used cooperatively in combination with each other for the transmission of said data to a receiver;

enabling the transmission of said data to said receiver via said plurality of access points utilizing at least one multi-access point transmission scheme, wherein data packets of said data comprise timestamps; and

determining, during the transmission, performance of at least one of said access points being used for the transmission to enable transmitting at least a portion of said data through a different access point while the transmission is in progress, wherein said performance is based at least on examination of said timestamps.

34. The method of Claim 33 wherein said enabling said transmission of said data comprises utilizing at least one multi-access point transmission scheme that comprises a split-balanced transmission scheme.

35. The method of Claim 33 wherein said enabling said transmission of said data comprises utilizing at least one multi-access point transmission scheme that comprises a site selection multi-access point transmission scheme.

36. The method of Claim 33 wherein said enabling said transmission of said data comprises utilizing a split-balanced transmission scheme and a site selection multi-access point transmission scheme that are used in conjunction.

37. The method of Claim 33 wherein respective access points of said plurality of access points operate cooperatively and in combination by transmitting different portions of said data in an alternating manner.

38. The method of Claim 33 wherein respective access points of said plurality of access points operate cooperatively and in combination by facilitating the transmission of a majority of said data over a first access point and the transmission of a remainder of said data over a second access point.

39. The method of Claim 38 wherein said remainder of said data is used to gather information related to said second access point.

40. The method of Claim 33 wherein said multi-access point transmission scheme is selected based upon information from the group consisting of a predetermined pattern, measurements from a variety of sources, and the content of said data to be transmitted.

IX. Evidence Appendix

No evidence is herein appended.

200315306-1
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X. Related Proceedings Appendix

No related proceedings.

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